

Name: _____

at1110paper_practice_test (v33)

1. Solve the equation with factoring by grouping.

$$10x^2 - 15x + 8x - 12 = 0$$

$$(5x + 4)(2x - 3) = 0$$

$$x = \frac{-4}{5} \quad x = \frac{3}{2}$$

2. Solve the equation.

$$(8x - 7)(4x - 5) = 0$$

$$x = \frac{7}{8} \quad x = \frac{5}{4}$$

3. Solve the equation.

$$10x^2 - 24x + 30 = 5x^2 + 3x + 2$$

$$5x^2 - 27x + 28 = 0$$

$$(5x - 7)(x - 4) = 0$$

$$x = \frac{7}{5} \quad x = 4$$

4. Expand the following expression into standard form.

$$(2x - 3)^2$$

$$4x^2 - 6x - 6x + 9$$

$$4x^2 - 12x + 9$$

5. Expand the following expression into standard form.

$$(8x + 9)(8x - 9)$$

$$\begin{aligned}64x^2 - 72x + 72x - 81 \\64x^2 - 81\end{aligned}$$

6. Factor the expression.

$$81x^2 - 49$$

$$(9x - 7)(9x + 7)$$

7. Factor the expression.

$$x^2 - 2x - 24$$

$$(x - 6)(x + 4)$$

8. Expand the following expression into standard form.

$$(3x + 7)(5x - 2)$$

$$\begin{aligned}15x^2 - 6x + 35x - 14 \\15x^2 + 29x - 14\end{aligned}$$